

Message

From: Andrew A Gremos [agremos@ramboll.com]
Sent: 12/13/2021 10:40:05 PM
To: Ohl, Matthew [ohl.matthew@epa.gov]
CC: Krueger, Thomas [krueger.thomas@epa.gov]; Neighbors, Katie [kneighbo@idem.IN.gov]; corey.s.knox@usace.army.mil; Becker, David J CIV USARMY CEHNC (USA) [Dave.J.Becker@usace.army.mil]; Clabaugh, William B CIV USARMY CELRL (USA) [William.B.Clabaugh@usace.army.mil]; Norman Bernstein [nwbernstein@nwblc.com]; pracher@psrb.com; Gary Wealthall [gwealthall@geosyntec.com]; Julie Konzuk [JKonzuk@geosyntec.com]
Subject: RE: Third Site MW-28 Supplemental Sampling Summary
Attachments: Preliminary GW Update_12.13.21.pdf; Preliminary Soil Update_12.10.21.pdf; Supplemental Sampling Boring Location Map.pdf

Matt,

Attached are the soil and groundwater data for the supplemental sampling work conducted at Third Site last week. A sample location map is also attached. Provided below is a summary of that work for reference. We are also setting up a share site where the data and WaterlooAPS profile logs will be placed moving forward. You and your team cc'd on this e-mail will receive an invite to the share site later today. Please let me know if you have any questions or experience any difficulty accessing the share site.

Best Regards,

Andy

From: Andrew A Gremos
Sent: Friday, December 10, 2021 5:08 PM
To: 'Ohl, Matthew' <ohl.matthew@epa.gov>
Cc: 'krueger.thomas@epa.gov' (krueger.thomas@epa.gov) <krueger.thomas@epa.gov>; Neighbors, Katie <KNeighbo@idem.IN.gov>; corey.s.knox@usace.army.mil; Becker, David J CIV USARMY CEHNC (USA) <Dave.J.Becker@usace.army.mil>; Clabaugh, William B CIV USARMY CELRL (USA) <William.B.Clabaugh@usace.army.mil>; Norman Bernstein <nwbernstein@nwblc.com>; pracher@psrb.com; Gary Wealthall <gwealthall@geosyntec.com>; Julie Konzuk <JKonzuk@geosyntec.com>
Subject: Third Site MW-28 Supplemental Sampling Summary

Matt,

Field activities for the MW-28 supplemental sampling at Third Site were initiated on Wednesday. A summary of work completed this week is provided below. A location map and WaterlooAPS profile logs for borings completed this week are attached for reference.

Day 1 - December 8, 2021

After evaluating the boring locations and conducting private locates, the supplemental sampling commenced in the Plume 2 investigation area. A summary of the work conducted is as follows:

- Work was initiated with the DP-25/TPZ-3 soil core (boring location map attached). In general, fill and upper till was encountered from the surface to 9.5 feet below ground surface (bgs), the sand and gravel unit was encountered from approximately 9.5 to 18.5 feet bgs, and the lower till was encountered to the maximum depth of 28 feet. 6 soil samples were collected for VOC analysis and 4 soil samples were collected for FOC analysis.
- The WaterlooAPS sampling was then conducted at DP-25 and at DP-23. The preliminary WaterlooAPS profile logs are attached. At DP-25/TPZ-3, only one water sample was able to be collected, and was at a depth of approximately 13 feet.

- No water samples were able to be collected at DP-23 due to the lack of a notable high conductivity unit (e.g. sand and gravel unit). A sample was attempted at approximately 13 feet, but it did not yield enough water for sample collection. That attempted sample was purged for about half an hour, and although we had some purge volume, it was not considerable and slowed quickly.
- The temporary piezometer (TPZ-3) will be installed after evaluation of the soil and groundwater VOC data from that location.

Day 2 - December 9, 2021

Drilling activities in the Plume 2 investigation area continued; however, subsurface anomalies presented challenges in a few locations as outlined below.

- Work was conducted at WaterlooAPS locations DP-24 and DP-27. Due to nearby subsurface utilities, hand auguring was conducted in the first few feet. At both locations, cobbles and hand auger refusal was encountered approximately 2-2.5 feet below the surface. A second attempt for DP-24 was made a few feet east of the original location. At both DP-24 locations, a liner or fabric of some sort was also encountered at this depth. It was decided to utilize additional soft dig techniques (e.g. air knifing) prior to advancing the Waterloo profiler at these locations. This is planned for next week.
- It was determined that the DP-28 location is too close to overhead lines to be safely installed, and it will be moved south toward DP-24 and would end up approximately 10-15 feet from DP-24. Given the subsurface anomalies encountered at DP-24 and DP-27, this alternative location will also be air knifed prior to advancing the Waterloo profiler and would therefore occur next week.
- WaterlooAPS location DP-26 was initiated, and in order to keep the second WaterlooAPS profiler in use, a second attempt at DP-23 was also initiated. Despite the lack of water produced during the original DP-23 yesterday, a water sample likely from within the Upper Till was able to be collected at approximately 6 feet below ground surface. An extra volume of water was collected from DP-23 for the additional analyses (renamed DP-23B).

Day 3 - December 10, 2021

Drilling activities in the Plume 2 investigation area continued and is summarized as follows:

- Boring DP-23B was completed and an additional sample for VOC analysis was collected from approximately 10 feet below ground surface (see attached log).
- Boring DP-26 was completed and three water samples were collected from depths of approximately 5, 9, and 14 feet below ground surface. Additional sample volume was collected from the 5 and 14-foot samples for additional analyses. These depths should represent groundwater from the Upper Till unit and from the Sand and Gravel unit.
- Boring DP-25 was reinstalled (renamed DP-25B) to attempt additional groundwater sample collection. A sample was able to be collected from approximately 17 feet, which is likely from the Sand and Gravel unit.

Work will resume on Monday December 13th in the field west of US 421. Soil and groundwater data will also be provided via a share site starting early next week.

Please let me know if you have any questions.

Andrew A Gremos LPG CHMM
Principal

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